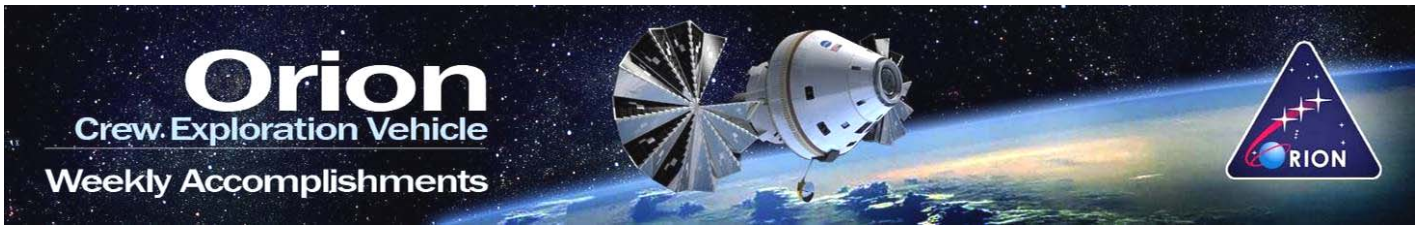


Week ending October 17, 2008

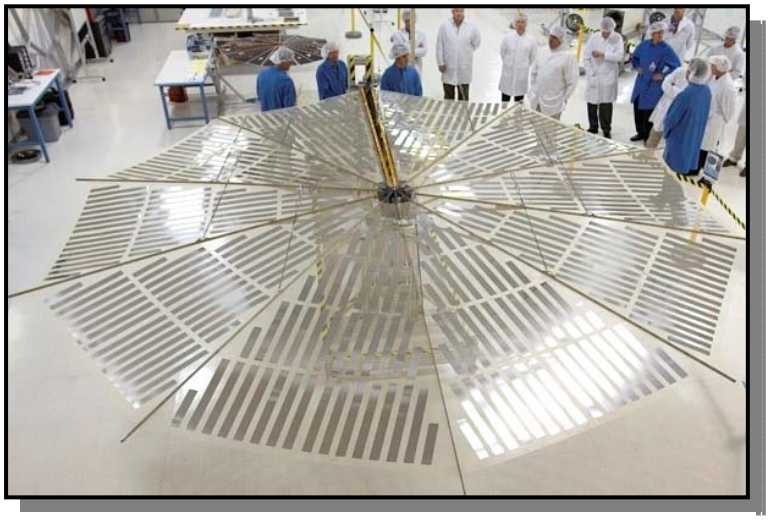
Countdown to Pad Abort-1 - 185 days

Launch Abort System (LAS) Motors

Abort Motor Static Test-1 insulated manifold is complete and shipped. The Static Test-1 case instrumentation is in work with 31 gauges installed. Abort Motor LAS-1 (Pad Abort-1) manifold and closure proof testing was successfully completed. Post-test inspection and data evaluation are in work. Jettison Motor (JM) structural development unit (SDU) inert propellant core removal was completed for the motor and igniter. SDU shroud and aft closure are in thermal protection system application processing. JM SDU is on schedule for delivery to Orbital by November 22.

Lateral and longitudinal vibration acceptance tests for PA-1 Developmental Flight Instrumentation (DFI) flight components are complete and vertical testing is in-work. In addition, lateral and longitudinal protoqual acceptance tests for DFI pallet components are complete. All components are making progress towards planned delivery to Dryden Flight Research Center in mid-November where they will be installed in the PA-1 crew module simulator.

A detailed technical review of the Orion Ultraflex solar array took place at ATK-Goleta focusing on updates and refinements to wing mechanical components and review of thermal, structural and electrical power performance. ATK hosted a media event to showcase the NASA New Millennium ST-8 UltraFlex wing deployment (Photos right) and its application to the Orion UltraFlex wing. The fabrication and deployment testing of the full-scale functioning UltraFlex wing hardware helped NASA, Lockheed Martin and ATK engineers address Orion design questions and reduce potential risks. Areas where data will be used are manufacturing, assembly, mechanism operation and performance of deployment in Earth's gravity. Additionally, the UltraFlex solar cells were exposed to structural testing to verify the UltraFlex solar blanket performance and survivability in expected launch and on-orbit environments. The UltraFlex disk shaped solar arrays, which measure more than 18 feet (5.5 meters) in diameter, are similar to those that will provide power for Orion during its missions. The design provides solar power at less than half the weight of traditional rigid panel solar arrays. The arrays feature ultra-lightweight materials that provide high strength and stiffness, as well as compact stowage volume. Smaller scale versions are currently powering NASA's Phoenix Lander.



Orion/Ares Interface

The Service Module (SM) Purge Vent and Drain (PVD) analyses of purge flow through the SM and through the SM structure to the ARES/ORION shared volume is complete. The results confirm the existing ground support equipment purge capability is sufficient to provide the purge. With the standard 100 Lbm/min purge flow rate inlet, about 88% of the purge flow exits the avionics vent holes directly into the shared volume and the remainder 12% of the flow exits through gaps between SM structures. A positive pressure is maintained in the SM interior volumes to avoid hazardous gas build-up.

Facilities

Kennedy Space Center Operations and Checkout Facility door seals for the east and west vertical door, controls and pneumatics were installed. Floor coating continues in the O&C low bay areas.

Michoud Assembly Facility Universal Weld System #2 Site concrete and anchor repairs are complete.

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Upcoming milestones

November 26, 2008
Launch Abort System Abort Motor full-scale static fire test at ATK-Utah.

Communications and Public Engagement

Lockheed Martin is sponsoring a space exploration program promotion outreach effort and lunch for 50 TX State Legislator Chiefs of Staff on Monday, October 27 at Space Center Houston. Guests will spend the afternoon touring Johnson Space Center.